

Code No: 54060

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B.Tech II Year II Semester Examinations, November/December - 2015****PRODUCTION TECHNOLOGY****(Common to ME, AME)****Time: 3 hours****Max. Marks: 75****Answer any five questions
All questions carry equal marks**

- 1.a) State and explain the types of patterns used in moulding.
- b) Describe the principle and operation of Cupola with a neat sketch. [7+8]

- 2.a) Classify the various types of risers used and their functions in casting.
- b) Explain the principle of investment casting process with the help of a neat sketch. [7+8]

- 3.a) What is plastic deformation? What are the advantages of hot working over cold working? Explain.
- b) What are different types of flames used for gas welding? Explain their characteristics. [8+7]

- 4.a) Distinguish between welding, soldering and brazing processes.
- b) Explain various defects in welding. State their causes and remedies. [7+8]

- 5.a) Explain the terms Recovery, Recrystallization and grain growth with respect to metal forming.
- b) Explain the theory behind the rolling process and discuss the salient parts. [8+7]

- 6.a) Distinguish between (i) Blanking and Piercing and (ii) Hot spinning and cold spinning
- b) Explain with neat sketches about the embossing and coining of sheet metal operations. [8+7]

- 7.a) Explain the impact extrusion and Hydrostatic extrusion processes.
- b) Explain the various types of forging defects and discuss the methods to minimize these defects. [8+7]

- 8.a) What are the various types of plastics used in engineering? Write down their properties and characteristics.
- b) Explain the blow moulding process with the help of neat sketches and discuss their practical application. [8+7]

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